

Work Order ID 158768

158768

Page 1

Friday, March 31, 2017 9:26:09 AM

Item ID: D3166-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Basket Hoop

Start Date: 4/3/2017 Start Qty: 20.00

20

Cust Item ID:

Required Date: 4/6/2017 Req'd Qty: 20.00

20

Customer:

Reference: SCHEDULED

Approvals: Process Plan: **DAS 21** Date: **MAR 31 2017**

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3166	Rev A1

100		0.00							
100	Skidtubes								
Large Fab	Memo	4.00							
Large Fab	Cut 3/4" x 3/4" square tubing 60.00" long.								

20x 20 2017/05/03

110		0.65							
110	BENDING MACHINE - SKIDTUBES								
CNC Bend 1	Memo	1.41							
CNC Delta 100 Bender	Form D3166-1-Basket Hoop as per Dwg D3166 using Bending program 350 BASB, and folio 18.								

W 17-04-04

120		0.00							
120	QC6- Inspect dimensions to drawing								
QC	Memo	0.00							
Quality Control	Inspect Basket Hoop dimensions with template D3166-1-T1 (DT8302)								

17 20 3

DAS 38 9-89

APR 06 2017

P.T.O.

DQA:

Date:

2017-05-25

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed:

Date:

MAY 15 2017

Work Order update only

Work Order: <u>158768</u>		DISPOSITION		AGAINST DEPARTMENT/PROCESS			
Part No. <u>D3166-1</u>		Rework ☐		Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐
NCR No. <u>17-6413</u>		Scrap ☒		Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐
		Use-as-is ☐		Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐
		Suspected Unapproved ☐		Large Fab ☒	Composite ☐	Supplier ☐	
Date: <u>17-04-06</u>		Step #: <u>110</u>		QTY Effective: <u>3</u>			MRB (QSI042) Approval DAS 9 9-89
Description Work Order Deviation				Disposition			
Qty of 3 rib was over bend				Scrap qty 3			
R.C process				no replace			
				Completed By <u>17-04-07</u> Lead hand / Supervisor Approval Verification <u>CPL</u> <u>17.4.7</u> QC / QA Coordinator DAS Approval 9 9-89 <u>17.04.06</u>			
Root Cause		FAULT CATEGORY					
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☒	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☒						
Misidentified ☐	Past Due ☐	OTHER :					

Work Order ID 158768

158768

Page 2

Friday, March 31, 2017 9:26:09 AM

Item ID: D3166-1

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Basket Hoop

Start Date: 4/3/2017 Start Qty: 20.00

20

Cust Item ID:

Required Date: 4/6/2017 Req'd Qty: 20.00

20

Customer:

Reference: SCHEDULED

Run Start ***NR1***

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop ***NR2***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: <u>WA004</u>	0.00							
130									
Packaging	Memo	0.20							
Packaging	LOCATION : WA004								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	2.00							
Quality Control									

~~20~~ ~~17~~ 2017/04/07

17/4/10 *[Signature]*

DAS
21
9-89

APR 07 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

Friday, March 31, 2017 9:26:14 AM

Page 1

Work Order ID: 158768

158768

Parent Item: D3166-1

D3166-1

Parent Item Name: Basket Hoop

Start Date: 4/3/2017

Required Date: 4/6/2017

Start Qty: 20.00

Required Qty: 20.00

Comments: IPP A02.08.23New issueKJ
IPP: B 08.12.05 Updated bending program on step 3 per NCR W/O43165 KJ
Verified by: EC
IPP Rev:C 09-01-23 as per DEO D3166-A2 DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M304TS0.750W.065

Purchased

No

100

f

667.8049

5

105.2632

M304TS0 750W 065

**

De 2017/04/03

304 SQ Tube .75x.75x.065W

Location

WA004

m133412
m136378
m136907
m137065

Loc Qty

667.804944
2.264944
93.54
15
557

Loc Code

B137065 →

106

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

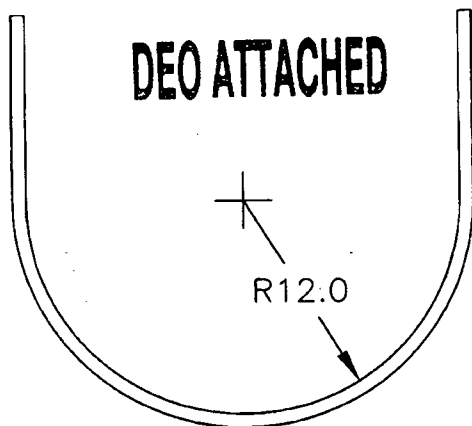
Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation			Disposition		
			Completed By		
			Lead hand / Supervisor Approval Verification		
			QC / QA Coordinator Approval		
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					



DESIGN #	DRAWN BY CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3166	REV. A SHEET 1 OF 1
DATE 02.07.10		TITLE BASKET HOOP	SCALE NTS
A	02.07.10	NEW ISSUE	
A1	04.04.08	38+/-1 WAS 36.0	

RELEASED
02.08.06

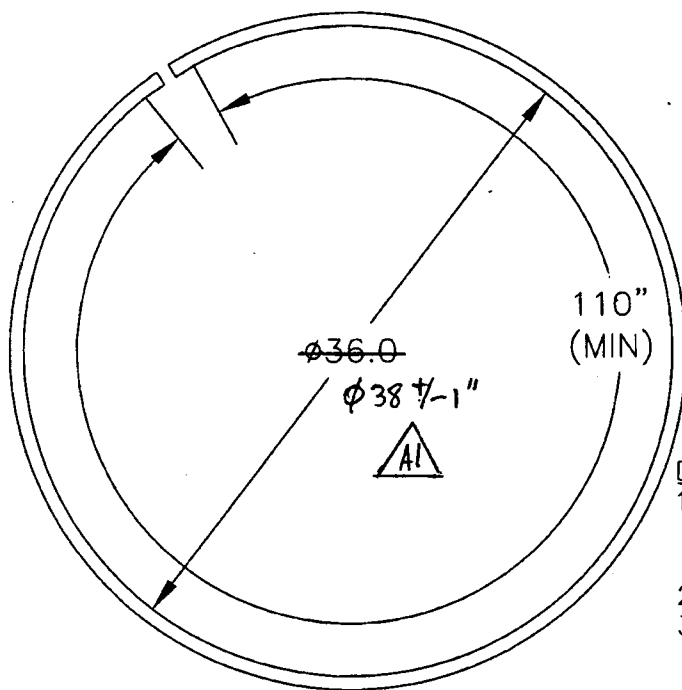
DEO ATTACHED



10.6 (REF, NEED 8.0 MIN)

D3166-1 BASKET HOOP

- 1) MATERIAL: AISI 304/316 SS SQUARE TUBING,
0.75" x 0.75" x 0.063 WALL, 60.00" LONG
(REF DART SPEC. M304TS0.750W.063)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS
OTHERWISE NOTED



SHOP COPY
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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 158768 MJS
17-03-31

D3166-3 BASKET HOOP

- 1) MATERIAL: AISI 304/316 SS SQUARE TUBING,
0.75" x 0.75" x 0.063 WALL, 120.00" LONG
(REF DART SPEC. M304TS0.750W.063)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS
OTHERWISE NOTED

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

DRAWING NO. D3166	TITLE BASKET HOOP	REVA1	DART AEROSPACE LTD ENGINEERING ORDER		D.E.O. NO. D3166-A-2	SHEET NO. 1 OF 1	SCALE NTS
DRAWN AJS	CHECKED [Signature]	MFG. APPR. [Signature]	APPROVED [Signature]		DE APPR. [Signature]		
DATE 08.12.11	DATE 08.12.15	DATE 08/12/15	DATE 08/12/16		DATE 08.12.16		

1) MODIFY MATERIAL NOTE FOR D3166-1 AS SHOWN:

IS:

1) MATERIAL: AISI 304/316 SS, 3/4 X 3/4 X 0.065 WALL SQUARE TUBING,
60.00" LONG
REF. DART SPEC M304TS0.750W.065

WAS:

1) MATERIAL: AISI 304/316 SS SQUARE TUBING,
0.75" x 0.75" x 0.063 WALL, 60.00" LONG
(REF DART SPEC. M304TS0.750W.063)

2) MODIFY MATERIAL NOTE FOR D3166-3 AS SHOWN:

IS:

1) MATERIAL: AISI 304/316 SS, 3/4 X 3/4 X 0.065 WALL SQUARE TUBING,
120.00" LONG
REF. DART SPEC M304TS0.750W.065

WAS:

1) MATERIAL: AISI 304/316 SS SQUARE TUBING,
0.75" x 0.75" x 0.063 WALL, 120.00" LONG
(REF DART SPEC. M304TS0.750W.063)

RELEASED
08/12/16 [Signature]

REASON: SEE PAR 08-005

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			Completed By
					Lead hand / Supervisor Approval Verification
					QC / QA Coordinator Approval
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					